REESE ET AL. -- 10/656,002 Attorney Docket: 044182-0305880

IN THE DRAWINGS:

The attached sheets of drawings additionally include newly added drawing FIG 6.

Attachment: Replacement Sheets.

REMARKS

The Office Action objects to the drawings and rejects claim 23 under 35 USC §112 as allegedly containing unclear recitations of the claimed subject matter. Claims 1-3, 5-7, 9-11, 13-15, 17 and 19-22 are rejected under 35 U.S.C. §102 as allegedly anticipated by U.S. Patent No. 4,262,991 to Wagener et al. ("Wagener") and claims 4, 8, 16, 18 and 23 are rejected under 35 U.S.C. §103 as allegedly unpatentable over Wagener in view of U.S. Patent No. 5,900,708 to Den Engelse et al. ("Den Engelse").

The Interview

Applicants thank the Examiner for the courtesies shown in the telephonic interview of March 10, 2008 ("the Interview") and for providing an interview summary shortly thereafter. Applicants have taken the Examiner's comments and positions into consideration in preparing this response.

Objections To The Drawings And Amendments To The Specification.

The Office Action objects to the drawings for failing to show a precision stage. Applicants have provided, in the disclosure of the present Application, a reference to United States Patent No. 5,812,310 ("the '310 Patent") that shows the operation and function of an advanced precision stage. Nevertheless, and for the sake of completeness, Applicants submit a new drawing labeled Fig. 6 that is extracted from the '310 Patent. As such, the new drawing adds no new matter to the Application. The Specification is amended to list the drawing. Applicants request withdrawal of the objection.

The Examiner objects to Figs. 4A-4B as allegedly using the reference character "412" to represent plural different parts of a drawing. The Examiner is mistaken.

Applicants refer the Examiner to the Amendment filed October 10, 2006. According to the Advisory Action mailed October 18, 2006, Amendments to the Application were entered that changed the designations of the objected-to reference numerals. Consequently, the objections are improper and should be withdrawn.

The §112 Rejection

Applicants urge the Examiner to reconsider and withdraw the rejection of claim 23 in view of the arguments presented below regarding the §102 rejections. The term "travel range" is explained below and certain misperceptions of the Examiner are identified that apparently have contributed to the Examiner's failure to appreciate the plain language of claim 23. A limited travel range of a precision stage is described in the Specification and the present Application claims a substrate holder that can effectively extend the area of substrate

observable in the travel range. Clearly then, a window corresponding to the travel range may mark the outer bounds of the range of travel of the precision stage (see below) and may consequently form an opening over a portion of the substrate that can be observed within the physical travel range of the precision stage. In the Interview, the Examiner suggested that a travel range of no travel is possible. This suggestion is addressed below, but the Examiner apparently appears to judge the claim on the basis of his misinterpretation of the plain language of the claim. Applicants submit that, absent such misinterpretation, the language of claim 23 is clear. Therefore the rejection should be withdrawn.

The §102 Rejections

Applicants respectfully traverse the rejections of claims 1-3, 5-7, 9-11, 13-15, 17 and 19-22. A cited prior art reference anticipates a claimed invention under 35 U.S.C. §102 only if every element of the claimed invention is identically shown in the single reference, arranged as they are in the claims. MPEP §2131; In re Bond, 910 F.2d 831, 832, 15 USPQ 2d 1566, 1567 (Fed. Cir. 1990). Each and every limitation of the claimed invention is significant and must be found in the single cited prior art reference. In re Donohue, 766 F.2d 531, 534, 226 USPQ 619, 621 (Fed. Cir. 1985). As set forth more fully below, Wagener does not disclose each and every element of the claims arranged as they are in the claims.

The claim rejections are improper because they rely on unreasonable interpretations of the claims and misconstruction and misinterpretation of the cited prior art. The Examiner contends that the express description, definition and function of certain elements of a precision stage in <u>Wagener</u> can be disregarded in order to support the allegation that <u>Wagener</u> teaches the substrate holder of the present claims.

Claim 1 of the present application requires *inter alia*, fixed and movable portions configured and operative to be attached to a precision stage, and an actuator mechanism operative to provide movement of the movable portion relative to the fixed portion, wherein the movement operates to position a selected area of a substrate within a precision travel range of the precision stage. Thus, the claim requires a precision stage having a travel range. The Examiner splits apart the pieces of <u>Wagener</u>'s mechanical stage and disregards the function, operation expressly taught for the individual pieces of Wagener's apparatus.

Specifically, the Examiner separates the stage plate 1 and fixed part 9, which when combined, form <u>Wagener</u>'s mechanical stage. <u>Wagener</u>, col. 1, lines 4-12 and *see* Figs. 1 and 2 of <u>Wagener</u>. Next the Examiner equates the fixed part of the <u>Wagener</u> mechanical stage to

the precision stage required in claim | of the present application. Such equation disregards the explicit teachings of <u>Wagener</u>, ignores the definition of "precision stage" provided in the present application and discounts the usage of the term "precision stage" that is well known in the field of microscopy.

Wagener explicitly teaches that the mechanical stage shown in its Figs. 1 and 2 has a displaceable stage plate and "a fixed part 9, which is connected with the microscope."

Wagener, col. 2, lines 7-10. The present Application provides a reference to the '310 Patent that shows the operation and function of an advanced precision stage that also has a fixed base plate and a movable stage. Applicants, in response to the objections discussed above, have submitted a drawing showing a precision stage as illustrated and described in the '310 Patent. A comparison of the latter stage with the Wagener mechanical stage reveals functional and operational similarities that include a base plate portion fixed to a microscope and a movable stage plate. In summary then, the claims and Specification of the present application are consistent with the definition of the precision stage as it is known in the art of microscopy.

However, the Examiner's adopts an interpretation of <u>Wagener's</u> mechanical stage that arbitrarily attributes the properties of a precision stage to a base plate portion of a mechanical stage that is fixed to a microscope and then cites the stage portion of <u>Wagener's</u> mechanical stage as teaching the movable portion of the presently claimed substrate holder. On its face then, such capricious interpretation and unsupported attribution of functionality is wholly unreasonable and improper. The lack of logic in the Examiner's interpretation becomes immediately apparent after even a cursory examination of the resulting structures obtained from such interpretation.

Specifically, the interpretation does not provide a structure of elements that satisfies the functional limitations of the claims. Specifically, the fixed base plate of <u>Wagener</u> must have a precision travel range under the Examiner's scheme in order to anticipate the precision stage of the required in claim 1. In the Interview, the Examiner stated that, in his opinion the travel range can be zero and, in any event, the functional limitation reciting the travel range does not limit the claims and is of no import. The Examiner is wrong on both counts.

The travel range limitation cannot be met by a stage of any kind that does not travel. To travel is to move or advance. Webster's Third New International Dictionary, Unabridged. Merriam-Webster, 2002. http://unabridged.merriam-webster.com (26 Mar. 2008). Non-

REESE ET AL. -- 10/656,002 Attorney Docket: 044182-0305880

movement or non-advancement is the opposite of traveling. Wagener's base plate is fixed and, as a consequence, it cannot travel. Furthermore, a range maybe defined as "a: a set of points lying on a line (as on the axis of an independent variable at which a function is defined) b: the difference between the least and greatest values of the attribute or variable of a frequency distribution." Webster's Third New International Dictionary, Unabridged.

Merriam-Webster, 2002. http://unabridged.merriam-webster.com (25 Mar. 2008). Clearly a range cannot consist of a single point and a travel range cannot exist where no travel occurs (i.e. Examiners travel = 0) since no minimum and maximum travel can exist. Consequently, it is readily apparent that the Examiner has taken an incoherent and unsupportable position regarding the illusory travel range of a fixed base plate.

In the Interview, the Examiner also suggested that a precision stage having a travel range was not required by claim 1 since the recitation of travel range fell within a functional limitation as indicated by the use of the word "operative." However, Applicants direct the Examiner's attention to MPEP 2173:

A functional limitation must be evaluated and considered, just like any other limitation of the claim, for what it fairly conveys to a person of ordinary skill in the pertinent art in the context in which it is used. A functional limitation is often used in association with an element, ingredient, or step of a process to define a particular capability or purpose that is served by the recited element, ingredient or step. In [nnova/Pure Water Inc. v. Safari Water Filtration Sys. Inc., 381 F.3d 1111, 1117-20, 72 USPQ2d 1001, 1006-08 (Fed. Cir. 2004), the court noted that the claim term "operatively connected" is "a general descriptive claim term frequently used in patent drafting to reflect a functional relationship between claimed components," that is, the term "means the claimed components must be connected in a way to perform a designated function."

MPEP 2173.05(g).

In the instant case, a precision stage and a travel range of a precision stage conveys specific meaning to a person of ordinary skill in the art. The benefit accrued from the ability to position a selected area of a substrate within a precision travel range of a precision stage will be readily appreciated by such artisan. Therefore, the functional limitations requiring the recited structure of the claimed substrate holder must be evaluated and considered with a degree of reasonableness commensurate with the significance the use of the term travel range of a precision stage to one of ordinary skill in the microscopy art. It is improper for the Examiner to disregard the capability or purpose that is served by the recited travel range of a precision stage.

Furthermore, the Examiner's position is inconsistent with the meaning of positioning an area of a substrate within a precision travel range of a precision stage as required in claim 1. The plain meaning of this recitation can be appreciated by considering that a travel range of zero cannot have maximum and minimum travel boundaries "within" which a substrate can be positioned. The written description should also be reviewed to assist understanding of the meaning of positioning an area of a substrate within a precision travel range.

For at least the reasons provided above, the rejection of claim 1 is improper because it is founded on a misconstruction of the teachings of the cited art and because it applies new meaning to well-defined terms of art. Therefore, the rejection should be withdrawn.

The §102 rejections of claims 9-11 and 17 are also improper for at least the reasons presented above in regard to claim 1. Moreover, claim 9 explicitly requires a precision stage having a precision travel range. <u>Wagener</u>'s fixed base plate does not travel and does not have a travel range.

Each of claims 2, 3, 5-7, 13-15 and 19-22 ultimately depend from one of independent claims 1, 9-11 and 17 and these dependent claims are allowable for at least the reasons the independent claims are allowable.

The \$103 Rejections

Applicants respectfully traverse each and every rejection of claims 4, 8, 16, 18 and 23.

Den Engelse does not cure the fundamental deficiencies of Wagener. Therefore, the speculative combination of the references fails to teach every element of the claims. Applicants also submit that one of skill in the art would not have been motivated to combine the references, since no value would accrue from such combination. The Examiner proposes that the combination would result in strengthened substrate and would "allow for light to shine through the substrate." This reasoning is illogical. Wagener teaches an object guide 3 that is a rail far removed from light paths. See Wagener, Fig. 1. Den Engelse offers no advantage to one seeking to modify Wagener's mechanical stage.

REESE ET AL. -- 10/656,002 Attorney Docket: 044182-0305880

CONCLUSION

All objections and rejections having been addressed, and in view of the foregoing, the claims are believed to be in form for allowance, and such action is hereby solicited. If any points remain in issue which the Examiner feels may be best resolved through a personal or telephone interview, he is kindly requested to contact the undersigned at the telephone number listed below. Please charge any fees associated with the submission of this paper to Deposit Account Number 033975. The Commissioner for Patents is also authorized to credit any over payments to the above-referenced Deposit Account.

Respectfully submitted,
PILLSBURY WINTHROP SHAW PITTMAN LLP

ANTHONY G. SMYTH, Reg. No. 55,636

Tel. No. 858 509.4007

Date: March 26, 2008 12255 El Camino Real, Suite 300 San Diego, CA 92130-4088 (619) 234-5000